Upon my return to Texas the Conchostraca specimens were presented to a fellow colleague, Dr. Stanley L. Sissom, who has long been interested in the systematics and ecology of Conchostraca. The results of his preliminary observations follow.

The discovery and the opportunity to study 2 populations of *Limnadiopsis brunneus* Spencer and Hall 1896 is a singular, noteworthy event. Many specimens sent to me for species determination consist of only a few specimens and in this case we are indeed fortunate on having collected enough material from the Mitchell Plateau area to justify an expansion of the original description of this species previously known only from near Port Darwin, Northern Territory. The samples collected at lat. 14°41'40"S. and long. 125°40'30"E consisted of 28 males and 32 females. They were just reaching maturity and about 25% of the females were ovigerous showing eggs either in the ovary or they bore a clutch of 75-100 brownish yellow eggs on the flabella. It is interesting to note that the saw-tooth carapace design appears only on those females bearing eggs and it would appear that the saw-tooth dorsal hinge on the carapace is a result of providing additional space beneath the carapace for the clutch of eggs. Externally both males and those females not bearing eggs are so similar that one side of the carapace must be removed for sex determination. The average carapace size was 11.5 mm long, 7.1 mm high and 2.5 mm wide in the males and the females averaged 10.6 mm long, 7.1 mm high and 2.0 mm wide. In both sexes the carapace is dark brown with a lighter ventral edge. The average number of carapace lines was 18 in both sexes. These measurements are only slightly larger than those reported by Spencer and Hall (1896) from 4 dried specimens.

Approximately 15 km from the first sample a second sample was collected (lat. 14°35'S, long. 125°42'E) that consisted of 16 specimens all of which were in the latter pre-adult stages and too young to show the secondary sexual characteristics required to make an accurate determination of the species. However, past experience with immature specimens and these samples average morphology leave very little doubt that this sample consists of immature *Limnadiopsis brunneus*. Since there is a wide range of immaturity among these specimens we hope to gain important notes on the development of the pre-adult stages. A complete analysis of developmental stages will require laboratory culture not possible from preserved specimens. On the basis of these samples however it will be possible to complete the description of the species which will be the subject of a forthcoming study.

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FROM FIELD AND STUDY

Barn Swallows at Carnarvon. — On 10 February 1982 I watched a group of swallows hawking over the Gascoyne Research Station, some of which were puzzling. When the birds rested on a wire above me I was able to compare the

strange swallows with a Welcome Swallow that accompanied them. The strange swallows, later identified as Barn Swallows, differed in their pure white venter (from mid-breast to under tail coverts), compared to the dirty grey of the Welcome. The chin, throat and forehead were a deep rufous brown, not a pale rufous brown; and the throat coloration was separated from the white breast by a broad black band. The upper parts were metallic blue-black. The tail seemed slightly longer and more deeply forked than the Welcome Swallow.

These birds disappeared from the area, but they were seen by P. Marsack on 22 February 1982 and by me on the following day.

This is the first record of the Barn Swallow *(Hirundo rustica)* from Western Australia south of the Pilbara.

—T. BARNES, Agriculture Department, Carnarvon, W.A.

Observations on Honeyeaters and their Food Plants in Peak Charles National Park. — A recent literature search undertaken by one of us (S.D.H.) and Allan H. Burbidge showed that there are surprisingly few published observations of honeyeaters feeding on flowers of native plants. Moreover, observations listing even common animals and plants in nature reserves and national parks are rarely published outside reports of professional biological surveys.

We consider that brief notes of the kind given below may make valuable contributions to knowledge of the reserves on which the plants and animals occur, as well as to an understanding of the feeding behaviour of the birds involved and of the pollination of their food plants. This is a field of study to which a significant contribution can be made by every naturalist with a keen eye for birds and an inclination to reliably identify their food plants.

The following observations on honeyeaters and their food plants were made during an inspection of Peak Charles National Park and environs on 29 September 1979.

1. Open Shrub Mallee — 1 km E of Peak Charles (32°53'S, 121°10'E). Numerous coexisting Purple-gaped Honeyeaters *(Lichenostomus cratitia)*, White-eared Honeyeaters *(L. leucotis)*, Brown Honeyeaters *(Lichmera indistincta)*, White-fronted Honeyeaters *(Phylidonyris albifrons)*, a few Red Wattlebirds *(Anthochaera carunculata)* and one Spiny-cheeked Honeyeater *(Acanthagenys rufogularis)* were seen on a 300 m transect between 0500 and 0700 hrs. Two Purple-gaped Honeyeaters were observed taking nectar from the long-styled flowers of *Grevillea plurijuga*.

2. Open Salmon Gum Woodland — 2 km N of Peak Charles (32°52'S, 121°10'E). A few Yellow-plumed Honeyeaters *(Lichenostomus ornata)* were seen in a sub-dominant mallee stratum between 0825 and 0833 hrs. One observed feeding on the small flowers of *Eucalyptus clavigona* foraged by darting pecks averaging ca. 0.5 to 1.0 seconds per flower.

3. Very Open Shrub Mallee over Low Heath — 3 km NE of Peak Charles (32°51'S 121°11'E). Several White-fronted Honeyeaters and a few Tawny-crowned Honeyeaters *(Phylidonyris melanops)* were observed during 0840 to 0900 hrs.

4. Low *Eucalyptus gracilis* Woodland — 10 km NE of Peak Charles (32°47'S, 121°14'E; outside National Park). Numerous coexisting Brown-headed *(Melithreptus brevirostris)*, White-eared, Purple-gaped, Brown and White-fronted Honeyeaters, numerous Red Wattlebirds, and solitary Yellow-plumed and Spiny-cheeked Honeyeaters were seen between 0915 and 0953 hrs. All species except the Yellow-plumed and Spiny-cheeked were observed feeding on the small fragrant flowers that were in profusion on *E. gracilis*. Red Wattlebirds chased smaller species on several occasions. A few Striated Pardalotes *(Pardalotus striatus)* were also present searching through the masses of *E. gracilis* flowers for insects. They ignored the nectar and pollen but frequently came in contact with stamens and styles. As a result, incidental self-pollination may have occurred.

5. *Grevillea eriostachya* Thicket — 19 km NE of Peak Charles (32°45'S, 121°18'E, outside National Park). Several Tawny-crowned and White-